

## **REMARKS / ARGUMENTS**

### **I. Rejection of claims 20-22 and 26-27 under 35 U.S.C. §102**

On page 2 of the Office Action, the Examiner has rejected claims 20-22 and 26-27 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 7,007,075 (hereinafter referred to as Coffey). The Applicant respectfully traverses this rejection and submits that the claims are in allowable form, as discussed below.

#### **Claim 20:**

Firstly, the Examiner contends that the resource manager being "adapted" to execute a method is not a positive recitation of the limitations of the resource manager in claim 20. The Applicant respectfully disagrees with the Examiner and respectfully submits that the Examiner's reasoning lacks sufficient foundation to support a rejection under 35 U.S.C. §102.

Secondly, with respect to Coffey, the Examiner's attention is directed to the following emphasized feature of claim 20:

20. A multi-service gateway, comprising:  
a plurality of packet-switched ports;  
a pool of port processing software entities (PPSEs), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and  
a resource manager adapted to execute a method comprising receiving connection requests and, **if a particular connection request involves at least one of the packet-switched ports, allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request, as a function of a usage level of the pool and as a function of a pool occupancy threshold.**

The Applicant respectfully submits that Coffey does not disclose, teach or suggest the above-emphasized feature of claim 20. More specifically, the allocation of a subset of PPSE's to satisfy a connection request involving a packet switched port as a function of a priority level, a usage level of the pool and a pool occupancy threshold is

nowhere found in Coffey.

Rather, Coffey discloses a system for controlling access to resources in a multi-thread environment. Under Coffey, a resource is given an object class and a resource pool having a maximum and a minimum limit. Every time a resource is used, the object of the resource object class is instantiated and added to the pool (column 3, paragraph 8; column 4, paragraph 2). When a pool reaches its maximum value, any further requests for the resource are denied until another thread holding the resource releases it (column 4, paragraph 3). There is no mention in Coffey of a connection request priority level and therefore resource allocation cannot be a function of a priority level of a connection request.

In addition to the above, Coffey is directed to a thread-safe system for access to resources by multiple client and not to a multi-service gateway, and as such, Coffey contains no mention of a plurality of "packet-switched ports" or of any corresponding "port processing software entity".

In view of the foregoing, the Applicant respectfully submits that there is at least one limitation of claim 20 that is not disclosed in Coffey and, as such, the rejection under 35 U.S.C. 102 (e) cannot stand. The Examiner is therefore respectfully requested to withdraw the rejection of claim 20.

Claims 22 and 26-27:

Regarding the Examiner's contention that the resource manager being "adapted" to execute a method is not a positive recitation of the limitations of the resource manager, the Examiner is respectfully referred to the Applicant's remarks made in respect of claim 20, above.

Furthermore, claims 22 and 26-27 depend either directly or indirectly on claim 20 and therefore include all of the limitations of claim 20. Thus, for the same reasons as

those set forth above in support of claim 20, it is respectfully submitted that claims 21-22 and 26-27 are in allowable form and the Examiner is respectfully requested to withdraw the rejection of claims 22 and 26-27.

Claim 21:

Claim 21 depends directly on claim 20 and therefore includes all of the limitations of claim 20. Thus, for the same reasons as those set forth above in support of claim 20, it is respectfully submitted that claim 21 is in allowable form and the Examiner is respectfully requested to withdraw the rejection of claim 21.

**II. Rejection of claims 1, 3-4, 6, 9, 11-17, 19, 26 and 29 under 35 U.S.C. §102**

On page 3 of the Office Action, the Examiner has rejected claims 1, 3-4, 6, 9, 11-17, 19, 26 and 29 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,980,515 (hereinafter referred to as Schunk et al.). The Applicant respectfully traverses this rejection and submits that the claims are in allowable form, as discussed below.

Claims 1 and 29:

With respect to Schunk et al., the Examiner's attention is directed to the following emphasized features of claims 1 and 29:

1. A method of processing a request for a connection through a multi-service gateway, comprising:
  - determining a usage level of a resource pool; and
  - if the usage level is below a pool occupancy threshold that is a function of the priority level of the connection request, allocating resources from the resource pool to satisfy the connection request;
  - if the usage level is not below the occupancy threshold, allocating resources from the resource pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.**
29. A multi-service gateway, comprising:
  - means for receiving a connection request;
  - means for determining a usage level of resources in a resource pool in the multi-service gateway; and

means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, **otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.**

The Applicant respectfully submits that Schunk et al. does not disclose, teach or suggest the above-emphasized limitations of claims 1 and 29. More specifically, nowhere in Schunk et al. is there provision for allocating a resource to satisfy a connection based on a priority level if the usage level of a resource pool is not below an occupancy threshold.

Rather, Schunk et al. teaches a multi-tiered multi-service network switch that can prioritize incoming connection requests when there is competition for resources. In Schunk et al., different users are classified according to different Quality of Access (QoA) levels that determine at any given time whether they will be granted access to the switch based on current switch usage (column 8, lines 61-66), (column 15, line 64 - column 16, line 10). QoA levels can be associated with switch usage levels (figure 13). In this embodiment, a connection request will only be granted the required resources if the current switch usage level is less than the level corresponding to the connection request's QoA. Schunk et al. makes no allowance for providing resources required by a connection request if the usage level of a resource pool is not below a usage threshold. In such a situation the connection is always rejected (column 8, line 66 - column 9, line 2; column 18, lines 8-12) which is not the case in the claimed invention.

In view of the foregoing, the Applicant respectfully submits that there is at least one limitation of claims 1 and 29 that is not taught or disclosed in Schunk et al. and, as such, the rejection under 35 U.S.C. 102 (e) cannot stand. The Examiner is therefore respectfully request to withdraw the rejection of claims 1 and 29.

Claims: 13-15:

Regarding the Examiner's contention that the processing resource being "adapted" to perform conversion is not a positive recitation of the limitations of the processing resource, the Examiner is respectfully referred to the Applicant's remarks made in respect of claim 20, above.

In addition, claims 13-15 depend either directly or indirectly on claim 1 and therefore include all of the features of claim 1. Thus, for the same reasons as those set forth above in support of claim 1, it is respectfully submitted that claims 13-15 are in allowable form and the Examiner is respectfully requested to withdraw the rejection of claims 13-15.

Claims 3-4, 6, 9 11-12, 16-17 and 19:

Claims 3-4, 6, 9, 11-12, 16-17, 19 depend either directly or indirectly on claim 1 and therefore include all of the features of claim 1. Thus, for the same reasons as those set forth above in support of claim 1, it is respectfully submitted that claims 3-4, 6, 9, 11-12, 16-17, 19 are in allowable form and the Examiner is respectfully requested to withdraw the rejection of these claims 3-4, 6, 9, 11-12, 16-17, 19.

Claim 26:

Claim 26 depends directly on claim 20 and as such contains all the features of claim 20. The Examiner's attention is respectfully directed to the fact that claim 20 has not been rejected in view of Schunk et al. As such, the Examiner has not actually shown Schunk et al. to teach any of the limitations of claim 20. Thus, a rejection of claim 26 under 35 U.S.C. 102 (e) in view of Schunk et al. is improper.

The Applicant also suggests the possibility of an error in the Office Action, since dependent claim 26 was already rejected in view of Coffey. This first rejection has been addressed by the Applicant earlier in the present response.

### **III. Rejection of claims 18, 23-25 and 28 under 35 U.S.C. §103**

On page 7 of the Office Action, the Examiner has rejected claims 18, 23-25 and 28 as under 35 U.S.C. §103(a) as being unpatentable over Schunk et al. in view of U.S. Patent No. 6,516,059 (hereinafter referred to as Shaffer et al.). The Applicant respectfully traverses this rejection and submits that the claims are in allowable form, as discussed below.

#### **Claim 18:**

Claim 18 depends directly on claim 1 and therefore contains all the features of claim 1, including those already shown to be absent from Schunk et al., including the feature of allocating a resource based on a priority level to satisfy a connection if the usage level of a resource pool is not below an occupancy threshold. Moreover, it is respectfully submitted that this feature is also absent from Shaffer et al.

Rather, Shaffer et al. relates to a system for efficient distribution of tasks related to calls. In certain telephony systems, for example a PBX system, a central unit performs call-related functions such as call-forwarding that “edge” devices (for example, telephony-enable computers serving individual users) may also be capable of handling. In such a system, it is often the case that tasks such as call-forwarding are more efficiently handled by the central unit, however it may be that at peak hours the central unit is overburdened by too many tasks. In Shaffer et al., a compromise is provided whereby call-related tasks are efficiently handled at the central unit while it is not overburdened and when a certain threshold of usage is reached, the task is passed on to the respective edge-device for handling thereat (column 2, lines 29-31). Thus, a call-related task is performed either by the central unit or by the edge device depending on a usage factor. The usage factor can be a delay threshold (column 2, lines 45-47; column 2, lines 54-58; column 7, lines 2-4) or, alternatively a resource usage threshold (column

2, lines 54-58; column 5, lines 25-29; column 7, lines 4-6). The factor can be based on usage of the central unit or on that of an edge device (column 6, lines 12-15). However, there is no priority level accorded to calls or connection requests in Shaffer et al. and therefore Shaffer cannot possibly provide a means of allocating resources if a usage level is above an occupancy threshold based on a priority level.

Now, as set forth in § 2143.03 of the *Manual of Patent Examining Procedure*, in order to establish a *prima facie* case of obviousness, the combined prior art references must teach or suggest all of the claim limitations. Since it has been shown that the combination of Schunk et al. and Shaffer et al. does not teach all of the limitations of claims 18, the Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

Claims 23-25 and 28:

Claims 23-25 and 28 depend either directly or indirectly on claim 20, which was never rejected by the Examiner in view of Schunk et al. In fact, the Examiner has not shown that all, if any, of the limitations of claim 20 are present in Schunk et al. Moreover, as pointed out above (in the discussion regarding claim 18), Shaffer et al. is devoid of any teachings relating to assigning priority to calls or connection requests. At a minimum, Shaffer et al. therefore does not suggest, teach or disclose the following limitation: a resource manager adapted to execute a method comprising receiving connection requests and, if a particular connection requests involves at least one of the packet-switched ports, allocating a subset of the PPSE's in a pool of PPSE's for satisfying the particular connection request, as a function of a priority level of the connection requests, of a usage level of the pool and of a pool occupancy threshold.

Now, as set forth in § 2143.03 of the *Manual of Patent Examining Procedure*, in order to establish a *prima facie* case of obviousness, the combined prior art references must teach or suggest all of the claim limitations. Since the Examiner has not shown that the combination of Schunk et al. and Shaffer et al. teaches all of the limitations of

claims 23-25 and 28, the Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

#### **IV. Comments on Non-Rejected Claims**

Claims 30 and 31 are noted as pending in the application, yet they have not been rejected. Since the Examiner has failed to specifically address them in the Office Action, it is believed that the Office Action is defective with respect to claims 30 and 31. It is respectfully submitted that in the absence of a specific rejection or objection, claims 30 and 31 should be held in condition for allowance.

The Applicant further notes that the same arguments that have been made regarding the rejection of claims 1 and 29 would hold as well for claims 30 and 31 if they were to be the object of the same rejections in view of the same prior art. Claims 30 and 31 are therefore believed to be in condition for allowance.

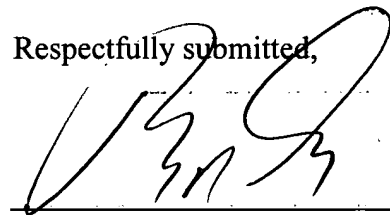


**CONCLUSION**

In view of the above, it is submitted that claims 1, 3-4, 6 and 8-31 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of claims 1, 3-4, 6 and 8-31 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,



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